

ABSTRACT

A Ziegler-Natta type catalyst component can be produced by a process comprising contacting a magnesium dialkoxide compound with a halogenating agent to form a reaction product A, and contacting reaction product A with a first, second and third halogenating/titanating agents. Catalyst components, catalysts, catalyst systems, polyolefin, products made therewith, and methods of forming each are disclosed. The reaction products can be washed with a hydrocarbon solvent to reduce titanium species [Ti] content to less than about 100 mmol/L.